

List of Respiratory Grid Knowledge Presentations

Trainees are expected to choose one of the major sections and prepare a 10 minute talk for each of a, b and c. They will be told which to give just before their presentation slot.

Respiratory Physiology A

The methodology and physiological principles underlying:

- A) Flow volume curves, measurement of lung volumes, the principle of bronchial lability
- B) Diffusion (single and multiple breath), plethysmography, lung clearance studies
- C) Infant lung function testing

Respiratory Physiology B

- a) Ventilation, perfusion, gas exchange and oxygen transport and how these relate to clinical findings and management
- b) The pathophysiology which explains wheeze, stridor, snoring and airway tone, cough and crackles
- c) The physiology of sleep including respiratory physiological changes during sleep stages, developmental changes, methods and usefulness of different measures in assessing sleep and breathing

Lung Development, normal and abnormal histology

- a) Normal and abnormal pre- and post-natal development and what effects it
- b) Histology/pathology of common disorders such as asthma and CF
- c) Relation between lung function, bronchoscopy findings, BAL and biopsy findings and radiological findings in asthma and CF

Diagnostic accuracy and repeatability of investigations

- a) Assessment of validity, precision, accuracy and repeatability of investigation
- b) The diagnostic accuracy and repeatability of blood gas analysis, sweat electrolyte measurement, Mantoux testing and total and specific IgE measurements and skin prick testing
- c) The diagnostic accuracy and repeatability of Viral PCR for respiratory viruses, immunofluorescence testing, inter-rater reliability of imaging of common conditions and bronchoscopic lavage findings for aspiration, infection and other diagnoses

Epidemiology of respiratory disorders

Within your talk you should show an understanding of the basic principles of epidemiology eg point and period prevalence vs incidence, confounders

- a) Epidemiology of acute respiratory infections
- b) Epidemiology of asthma, atopy and allergy
- c) Epidemiology of mycobacterial infections

Infectivity of respiratory infection

- a) Different models of infectivity in respiratory disease
- b) Prevention of hospital acquired respiratory infection
- c) Pandemic respiratory threats eg pandemic influenza, SARS

Therapeutics and therapies

- a) Pharmacology and side effects of commonly used drugs in respiratory paediatrics
- b) Assessing cost effectiveness of therapy (with examples)
- c) Maximising concordance with therapy